

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (currently amended) A method for controlling amplification of a high-frequency intermittent signal, the method comprising the steps of:

passing a radio-frequency signal in a data transmission to be amplified in a controlled loop to a variable-gain amplifier, a gain being controlled by an amplifier control signal;

coupling out part of the amplified radio-frequency signal via a directional coupler;

passing the coupled out part of the amplified radio-frequency signal to a power detector;

passing an output voltage of the power detector for difference-forming with a separate control signal to inputs of a comparator circuit;

readjusting an output of the comparator circuit, as the amplifier control signal, to increase the power output level ~~with~~within a transmission burst;

continuing the readjustment until the output voltage of the detector and a voltage of the separate control signal at the inputs of the comparator circuit compensate for one another;

keeping the control loop closed for a controlled up-ramping within said transmission burst;

opening the control loop and keeping the amplifier control signal constant during the period of the data transmission within said transmission burst; ~~and~~

closing the control loop for a controlled down-ramping within said transmission burst after completion of the data transmission;

making a switchover into a hold mode, after a controlled up-ramping of a power output level of the radio-frequency signal to be amplified, with the gain kept constant;

closing a second control loop, during the hold mode in the control loop, such that the output voltage of the comparator circuit is kept at the stored value of the amplifier control signal;
and

correcting a deviation between the output voltage of the comparator circuit and the stored value of the amplifier control signal by an additional operational amplifier in the second control loop.

Claim 2. (canceled)

Claim 3. (original) A method for controlling amplification of a high-frequency intermittent signal as claimed in Claim 1, the method further comprising the step of:
storing the amplifier control signal for constant setting in a sample-and-hold circuit before beginning the data transmission.

Claim 4. (currently amended) A method for controlling amplification of a high-frequency intermittent signal as claimed in Claim 21, the method further comprising the step of:
making a switchover into a control mode, after the hold mode with a gain kept constant, for the controlled down-ramping of the power output level of the radio-frequency signal to be amplified.

Claim 5. (original) A method for controlling amplification of a high-frequency intermittent signal as claimed in Claim 4, wherein switching is performed back and forth between the hold and the control modes.

Claim 6. (original) A method for controlling amplification of a high-frequency intermittent signal as claimed in Claim 4, wherein the switching over from the control mode to the hold mode occurs before the data transmission and switching back from the hold mode to the control mode occurs after the data transmission.

Claim 7. (canceled).

Claim 8. (canceled).

Claim 9. (original) A method for controlling amplification of a high-frequency intermittent signal as claimed in Claim 8, the method further comprising the step of:

correcting a deviation between an output voltage of the additional operational amplifier and the separate control signal so as to avoid control processes of the control loop due to a possible power drop.

Claim 10. (original) A method for controlling amplification of a high-frequency intermittent signal as claimed in Claim 9, wherein the correction is performed after a phase of the data transmission.

Claim 11. (original) A method for controlling amplification of a high-frequency intermittent signal as claimed in Claim 9, wherein the deviation between an output voltage of the additional operational amplifier and the separate control signal is established by a sampling operation shortly before a point in time which is one of a start of a down-ramping and a controlled power output reduction.

Claim 12. (original) A method for controlling amplification of a high-frequency intermittent signal as claimed in Claim 9, wherein the deviation between the output voltage of the operational amplifier and the separate control signal is held in a sample-and-hold circuit and subtracted from the separate control signal to form a new control signal.

Claim 13. (original) A method for controlling amplification of a high-frequency intermittent signal as claimed in Claim 9, wherein switches are switched by a switch control signal at a same time and substantially without delay.

Claim 14. (original) A method for controlling amplification of a high-frequency intermittent signal as claimed in Claim 1, the method further comprising the steps of:

simulating a variation over time of the power output level during one of up-ramping and down-ramping by the separate control signal; and
predetermining a respectively desired power output level.

Claim 15. (currently amended) A method for controlling amplification of a high-frequency intermittent signal as claimed in Claim 13, wherein the separate control signal and the switch control signal are generated in a control part.

Claim 16. (original) A method for controlling amplification of a high-frequency intermittent signal as claimed in Claim 15, wherein the separate control signal and the switch control signal are generated in the control part based on a predetermined time pattern of a respective mobile radio standard.

Claim 17. (currently amended) A unit for at least one of transmitting and receiving, and for controlling amplification of a high-frequency intermittent signal, comprising:

- a control loop for controlling a power output level of a high-frequency signal to be amplified during a data transmission;

- a variable gain amplifier in the control loop, an input being connected to the variable gain amplifier and a gain of the variable gain amplifier being formed such that it can be controlled via an amplifier control signal;

- a directional coupler in the control loop, the directional coupler for coupling out part of the output power of the amplified high-frequency signal;

- a power detector provided at an output of the control loop, the power detector receiving from the directional coupler the coupled out part of the output power of the amplified high-frequency signal; and

- a comparator circuit connected to the power detector for receiving an output voltage of the power detector, the comparator circuit determining a difference between a separate control signal connected to the comparator circuit and the output voltage of the detector, wherein the comparator circuit adjusts the difference via an adaptation of the amplifier control signal as an output signal of the comparator circuit via a transmission burst and continuing the adjustment until the output voltage and the control signal compensate for one another; and wherein:

 - the control loop is closed for a controlled up-ramping within said transmission burst;

 - the control loop is open during the period of the data transmission within said transmission burst while the amplifier control signal is kept constant; and

the control loop is closed for a controlled down-ramping within said transmission burst after completion of the data transmission; and

a second control loop for correcting a deviation between the output signal of the comparator circuit and a stored value of the amplifier control signal.

Claim 18. (original) A unit for at least one of transmitting and receiving, and for controlling amplification of a high-frequency intermittent signal as claimed in Claim 17, further comprising a switch for opening and closing the control loop via a switch control signal for interrupting the control loop.

Claim 19. (original) A unit for at least one of transmitting and receiving, and for controlling amplification of a high-frequency intermittent signal as claimed in Claim 18, further comprising a sample-and-hold circuit in the control loop for keeping the amplifier control signal constant.

Claim 20. (original) A unit for at least one of transmitting and receiving, and for controlling amplification of a high-frequency intermittent signal as claimed in Claim 19, wherein the switch connects the sample-and-hold circuit when the control loop opens.

Claim 21. (original) A unit for at least one of transmitting and receiving, and for controlling amplification of a high-frequency intermittent signal as claimed in Claim 17, wherein the comparator circuit is an operational amplifier designed as an integral-action controller.

Claim 22. (original) A unit for at least one of transmitting and receiving, and for controlling amplification of a high-frequency intermittent signal as claimed in Claim 17, further comprising a linear amplifier with a constant gain factor following the variable gain amplifier for further amplification of the radio-frequency signal to be amplified.

Claim 23. (original) A unit for at least one of transmitting and receiving, and for controlling amplification of a high-frequency intermittent signal as claimed in Claim 17, wherein the directional coupler has a constant coupling factor of -15 dB.

Claim 24. (canceled).

Claim 25. (currently amended) A unit for at least one of transmitting and receiving, and for controlling amplification of a high-frequency intermittent signal as claimed in Claim 24~~17~~, further comprising a further operational amplifier with an integrating property in the second control loop.

Claim 26. (original) A unit for at least one of transmitting and receiving, and for controlling amplification of a high-frequency intermittent signal as claimed in Claim 25, further comprising a device for correcting a deviation between the separate control signal and an output signal of the second control loop.

Claim 27. (original) A unit for at least one of transmitting and receiving, and for controlling amplification of a high-frequency intermittent signal as claimed in Claim 26, further comprising means for correcting a difference between a gain held in the control loop and a predetermined set point gain of the control loop, wherein undesired control processes do not occur within the control loop when switching from a hold mode into a control mode.

Claim 28. (original) A unit for at least one of transmitting and receiving, and for controlling amplification of a high-frequency intermittent signal as claimed in Claim 27, wherein the means for correcting includes a sample-and-hold circuit for sampling an output signal of the further operational amplifier.

Claim 29. (original) A unit for at least one of transmitting and receiving, and for controlling amplification of a high-frequency intermittent signal as claimed in Claim 27, wherein the means for correcting includes a voltage-controlled voltage source for adapting the separate control signal, designed for generating an adapted control signal by subtraction of a difference, determined on the basis of a sampling operation.

Claim 30. (original) A unit for at least one of transmitting and receiving, and for controlling amplification of a high-frequency intermittent signal as claimed in Claim 18, further comprising a control part for generating the separate control signal and the switch control signal based on a prescribed time pattern of a respective mobile radio standard.

Claim 31. (original) A unit for at least one of transmitting and receiving, and for controlling amplification of a high-frequency intermittent signal as claimed in Claim 17, wherein the unit is contained in a mobile terminal of at least one of a cellular data network and a communication network.

Claim 32. (currently amended) A communication system with a transmitting unit and a receiving unit for exchanging data via an intermittent radio frequency signal, the system comprising:

a control loop for controlling a power output level of a high-frequency signal provided in the transmitting unit during a data transmission;

amplification means coupled to the control loop, wherein the gain of the amplification means is controlled via an amplifier control signal;

coupling means, connected to the amplification means, for coupling out part of the output power of the amplified high-frequency signal;

power detection means coupled to the control loop, said power detection means receiving the coupled out part of the output power of the amplified high-frequency signal; and

output control means connected to the power detection means for receiving an output voltage of the power detection means, the output control ~~means~~means determining a difference between the control signal and the output voltage of the power detection means, wherein the power detection means adjusts the difference via an adaptation of the control signal as an output signal of the output control means via a transmission burst and continuing the adjustment until the output voltage and the control signal compensate for one another; and wherein:

the control loop is closed for a controlled up-ramping within said transmission burst;

the control loop is open during the period of the data transmission within said transmission burst while the amplifier control signal is kept constant; and

the control loop is closed for a controlled down-ramping within said transmission burst after completion of the data transmission; and-
a second control loop for correcting a deviation between the output signal of the comparator circuit and a stored value of the amplifier control signal.

Claim 33. (original) A communication system with a transmitting unit and a receiving unit for exchanging data via an intermittent radio-frequency signal as claimed in Claim 32, wherein at least one of the transmitting unit and the receiving unit is configured as a mobile unit.

Claim 34. (previously presented) A communication system with a transmitting unit and a receiving unit for exchanging data via an intermittent radio-frequency signal as claimed in Claim 33, wherein the mobile unit is at least one of a mobile telephone and a mobile data transmission device.